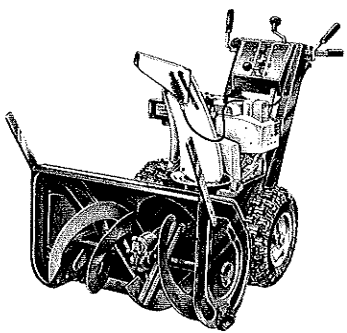
WALK-BEHIND SNOWTHROWERS

560S
870S
1080S



OPERATOR'S MANUAL

This manual covers the following Manufacturer's Numbers:

560: 5 HP, 60 CM WIDTH
MFG. NO. 1691368
MFG. NO. 1691774

870: 8 HP, 70 CM WIDTH
MFG. NO. 1691370
MFG. NO. 1691775

1080: 10 HP, 80 CM WIDTH
MFG. NO. 1691371
MFG. NO. 1691716
MFG. NO. 1691776

⚠ WARNING

This unit is a "two-stage" snowthrower. The first stage is the auger, which feeds the snow back into the impeller housing. The second stage is the impeller, which throws the snow out the discharge chute. If bodily contact is made with the auger or impeller when they are rotating, severe personal injury will occur. To avoid injury, keep others and yourself away from the auger and the discharge chute whenever the engine is running. See Safety Rules on the following pages.

⚠ WARNING

To avoid serious injury, do not put your hands into the auger housing or discharge spout. If auger stalls or spout plugs, use the following procedure to remove objects or clear the spout.

1. **Release both drive levers.**
2. **Shut off the engine.**
3. **Wait for moving parts to stop.**
4. **Use a narrow board to remove foreign objects and clear the spout. Never put your hands into the auger or discharge spout, because tension buildup due to plugging could cause parts to rotate upon clearing.**

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Safety Rules

Read these safety rules and follow them closely. Failure to obey these rules can result in loss of control of machine, severe personal injury to yourself or bystanders, or damage to property or equipment affecting safety. The triangle ⚠ in the text signifies important cautions or warnings which must be followed.

GENERAL

- Read the Operator's Manual carefully. Be thoroughly familiar with all controls and proper equipment use.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- Never discharge material toward any person or pet.
- Make sure:
  a. snowthrower is in good operating condition,
  b. all safety devices and shields are in place and working, and
  c. all adjustments are correct.

PREPARATION

- Never attempt to make any adjustment while engine is running.
- Thoroughly inspect the area where the snowthrower is to be used and remove all objects such as door mats, sleds, boards, wires, and sticks.
- Disengage all clutches (release drive levers) before starting engine.
- Do not operate snowthrower without wearing proper winter clothing. Wear footwear which improves footing on slippery surfaces.
- Handle gasoline with care — it is highly flammable.
  a. Use approved gasoline container.
  b. Never remove the fuel tank cap or add gasoline to a running or hot engine.
  c. Never fill the fuel tank indoors.
  d. Wipe up spilled gasoline.
- Adjust skid shoe height to clear gravel or crushed rock surface.
- Do not run engine indoors. Exhaust fumes are deadly.

OPERATION

- Keep hands and feet away from rotating parts. Keep clear of discharge opening at all times.

•Always clear snow up and down the face of slopes, never across the face. Use extreme caution when changing direction on slopes. Do not attempt to clear slopes over 35% (19.3°).

•After striking an object, release drive levers, stop the engine, and remove spark plug wire. Inspect the snowthrower for damage before restarting.

•Use extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards and traffic.

•Be especially careful not to touch snowthrower parts which might be hot from operation. Allow such parts to cool before attempting to maintain, adjust, or service.

•If unit starts to vibrate abnormally, disengage drives and stop the engine. Check immediately for the cause. Vibration is generally a warning of trouble.

•Before leaving operator's position for any reason: shut off engine, remove key, and wait for all moving parts to stop.

•Before cleaning, repairing, or inspecting, make certain all moving parts have stopped. Remove key and remove spark plug wire to prevent accidental starting.

•Always use grounded 3 wire plug-in for electric starting.

•Adjust snow discharge angle for safe flow when operating near glass enclosures, automobiles, window wells, dropoffs, etc.

•Do not overload machine capacity by clearing snow at too fast a ground speed.

•Never operate machine at high transport speeds on slippery surfaces. Use care when backing.

•Disengage auger drive when transporting or not in use.

•Never operate the snowthrower without good visibility or light. Always be sure of your footing.

•Do not change the engine governor settings or overspeed the engine.

MAINTENANCE & STORAGE

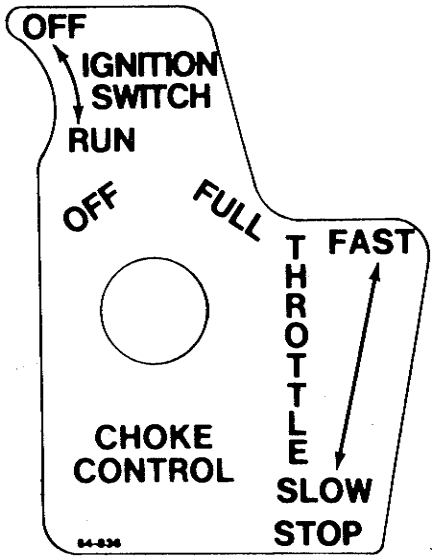
•Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.

•Never store equipment with gasoline in the tank in a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

•Always refer to the Operator's Manual for important details if snowthrower is to be stored for an extended period.

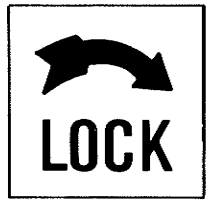
•Run auger drive a few seconds after each completion of throwing snow to help clear out snow and prevent freeze up.

Safety Decals



⚠ WARNING

MUFFLER & ADJACENT AREAS MAY EXCEED 150°



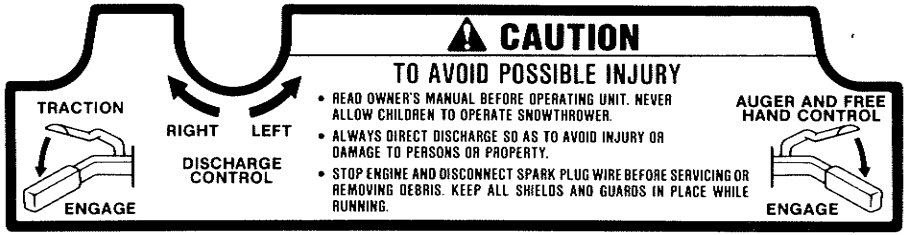
TECUMSEH ENGINE INSTRUCTIONS

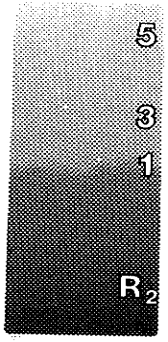
CAUTION:
⚠ FOR YOUR PERSONAL PROTECTION, READ ALL SAFETY NOTES IN ENGINE OWNER'S MANUAL.

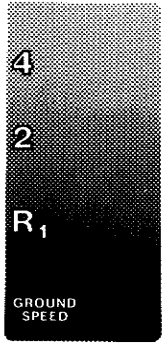
OPERATION:
FOR DETAILED LUBRICATION, STARTING, AND OPERATING INSTRUCTIONS, SEE ENGINE OWNER'S MANUAL AND EQUIPMENT MFR'S. INSTRUCTIONS.

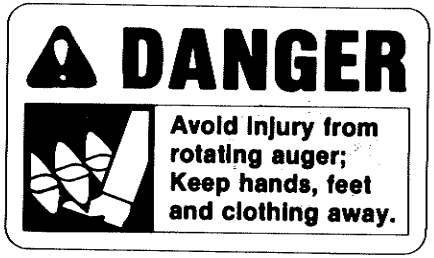
LUBRICATION:
SUMMER ... SAE 30 OIL
WINTER ... SAE 5W-30 OIL

TECUMSEH PRODUCTS COMPANY
900 NORTH STREET
GRAFTON, WI 53024, U.S.A.


⚠ CAUTION
TO AVOID POSSIBLE INJURY
• READ OWNER'S MANUAL BEFORE OPERATING UNIT. NEVER ALLOW CHILDREN TO OPERATE SNOWTHROWER.
• ALWAYS DIRECT DISCHARGE SO AS TO AVOID INJURY OR DAMAGE TO PERSONS OR PROPERTY.
• STOP ENGINE AND DISCONNECT SPARK PLUG WIRE BEFORE SERVICING OR REMOVING DEBRIS. KEEP ALL SHIELDS AND GUARDS IN PLACE WHILE RUNNING.
TRACTION
ENGAGE
RIGHT
LEFT
DISCHARGE CONTROL
AUGER AND FREE HAND CONTROL
ENGAGE







Safety Decals

Safety warning signs are placed at strategic locations on the snowthrower as a constant reminder to the operator of the most important safety precautions. All Warning, Caution, and instructional messages on your snowthrower should be carefully read and obeyed.

If any of these signs are lost or damaged, replace them at once. They can be purchased from your dealer.

Operation

SNOWTHROWER CONTROLS

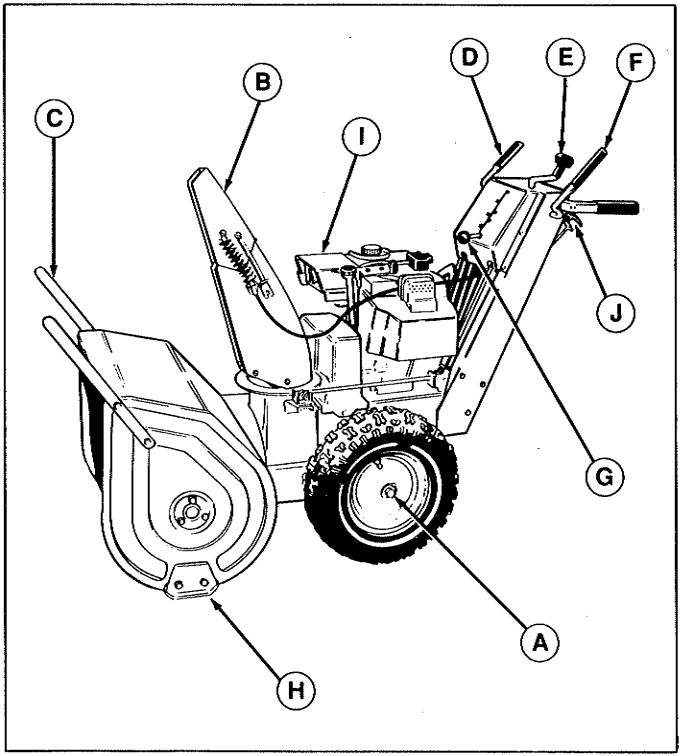


Figure 1.

ITEM	NAME	FUNCTION
A	Traction Drive Lock	Disengage for freewheeling.
B	Deflector	Controls discharge angle.
C	Drift Cutter	Helps break through tall drifts (optional).
D	Auger & Free-Hand™ Control	Engages auger drive. Also allows for continued drive when traction control (F) is released. See "Operation" section for more explanation.
E	Discharge Control	Controls direction snow is thrown.
F	Traction Control	Engages traction drive.
G	Ground Speed Control	Controls ground speed. Five forward speeds, two reverse speeds.
H	Skid Shoes	Controls height of scraper bar.
I	Headlight	Amber lens for low-light conditions. Controlled by a light switch on side of housing (optional).
J	Deflector Cap Adjuster	Controls angle of deflector cap (B) from operator's position.

ENGINE CONTROLS

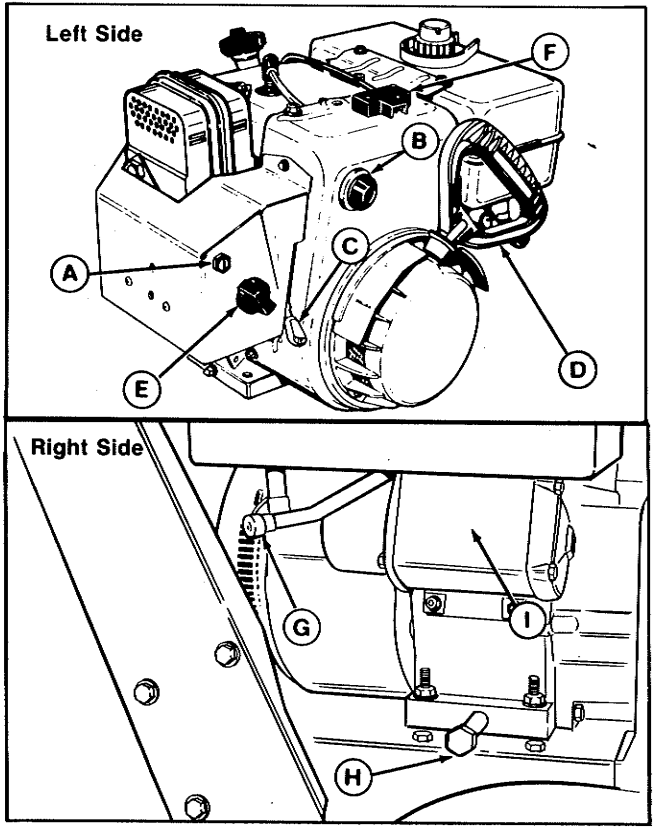


Figure 2.

ITEM	NAME	FUNCTION
A	Ignition Switch	Allows starting & stopping of engine.
B	Primer Bulb	Primes carburetor.
C	Throttle Lever	Controls engine speed.
D	Rewind Starter	Allows manual start.
E	Choke	Enriches fuel supply for cold starts.
F	Electric Starter	Engages starter motor when button is depressed. (Optional)
G	Fuel Shut-Off Valve	Opens and closes fuel valve from gas tank. Turn counter clockwise to open valve.
H	Engine Oil Drain	Threaded cap on oil drain provides easy access for oil changes.
I	Starter	Used for electric start units.

CHECKS BEFORE EACH STARTUP

1. Make sure all safety guards are in place and all nuts, bolts and clips are secure.
2. Check the engine oil level. See your engine Owner's Manual for procedure and specifications.
3. Check the fuel supply. Fill the tank to within 1/4 to 1/2 inch of top of tank to provide space for expansion. See your engine Owner's Manual for fuel recommendations.

WARNING

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is hot or running. Always move the outdoors to fill the tank. Keep snowthrower and gasoline away from open flame or spark.

4. Position the deflector at the desired angle and the scraper bar at the desired height. Engage or disengage the traction drive lock. These procedures are explained in the following paragraphs.

DEFLECTOR ADJUSTMENT

The angle and distance of discharged snow can be controlled by the position of the deflector cap. (Engine speed and wind conditions also affect snow throwing distance.)

Deflector cap angle is controlled by a cable release mounted next to traction drive lever (see top inset, figure 3). To lower discharge angle, turn release lever counterclockwise and pull up. Turn lever clockwise to lock position. To raise angle for increased snowthrowing distance, turn release lever counterclockwise. Spring will return chute to maximum throw position. Pull cable to desired position and turn lever clockwise to lock in.

With Free-Hand™ Control activated (see page 12 for explanation), deflector cap can be adjusted with operator's left hand while snowthrowing.

Make sure that cable is routed away from muffler as shown (bottom inset). Cable should not touch spark plug. Loosen taptite screw in engine block to reposition clip and cable.

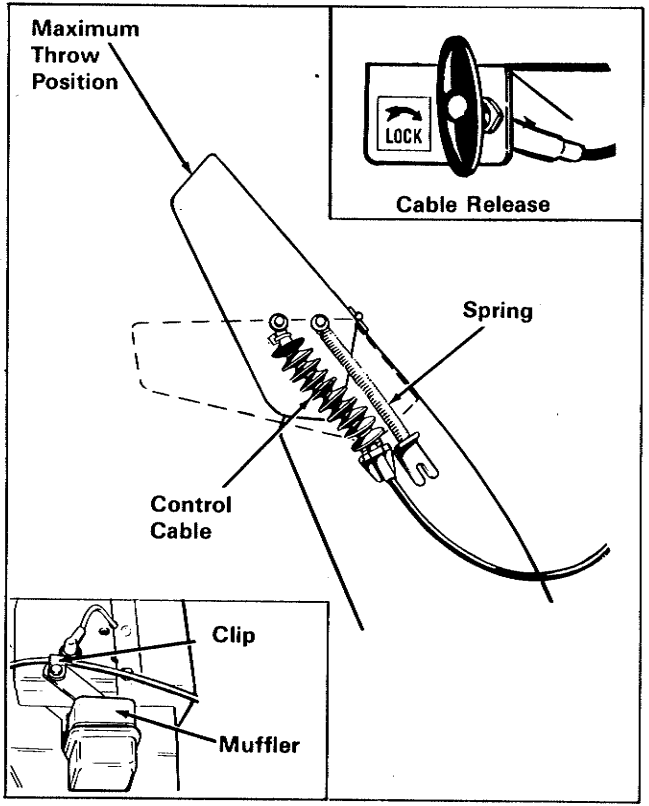


Figure 3. Deflector Adjustment

SCRAPER BAR HEIGHT ADJUSTMENT

On smooth surfaces such as concrete or asphalt, the scraper bar should scrape the surface. On surfaces such as gravel, the scraper bar should be high enough so that it will not pick up gravel or debris.

The height of the scraper bar is controlled by raising or lowering the skid shoes (figure 4).

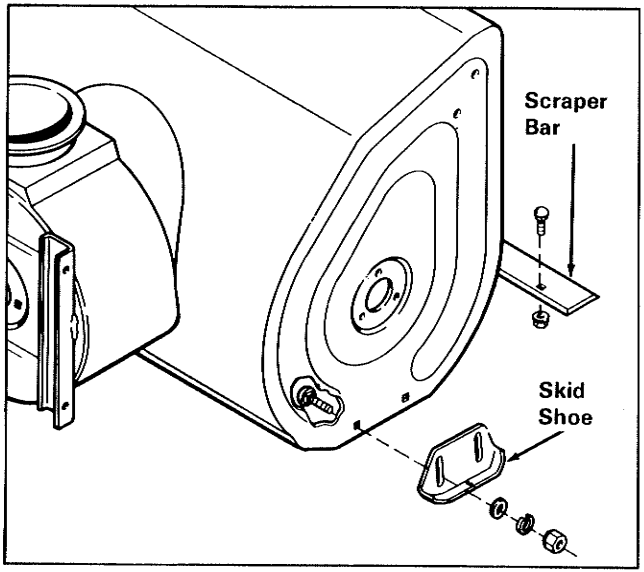


Figure 4. Skid Shoe Adjustment

To raise the scraper bar, rest the scraper bar on a piece of wood of thickness equal to desired height of the scraper bar. Make sure the scraper bar is parallel to the surface. Loosen the skid shoe nuts and let the skid shoes drop to the surface. Tighten the nuts, making sure the skid shoes are adjusted equally and are parallel to the surface.

To lower the scraper bar, raise the skid shoes.

If the scraper bar becomes worn, it can be moved down. Rest the skid shoes on pieces of wood. Loosen the nuts which secure the scraper bar to the housing, and slide the scraper bar down (holes in housing are slotted). Tighten the nuts securely.

FREEWHEELING/TRACTION DRIVE LOCK

For easy turning when pushing the snowthrower (engine off), disengage the traction drive locks (see figure 5 and 6). You can disengage one wheel, or both, for easier turning.

To disengage the lock, insert the pin thru the outer hole in the axle as shown in figure 5. (Hub should remain at inner position).

To engage the lock, insert the pin thru the hub and axle as shown in figure 6. Hub should be at inner position or wheelbase will be wider than auger housing. If the hole in the hub is not aligned with the inner hole in the axle, push the snowthrower until the holes align and install the klik-pin.

When snowthrowing, engage both wheels for best performance. You can, however, only engage one wheel to make turning easier, if you are not using full width of auger. Engage the wheel on the side of the snowthrower that contacts the snow.

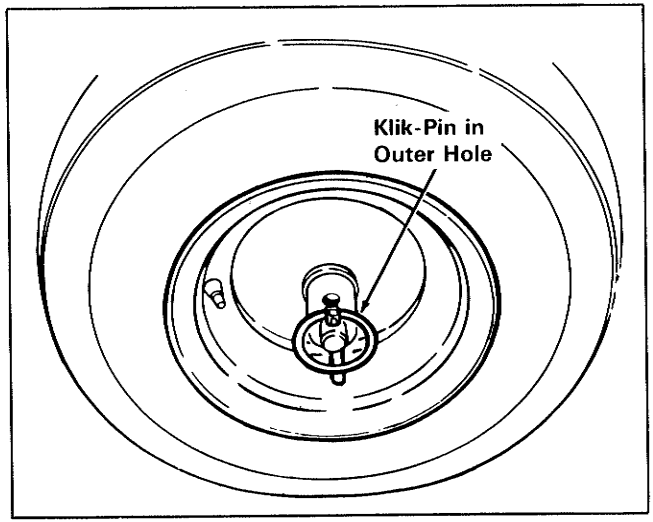


Figure 5. Traction Drive Lock - Disengaged

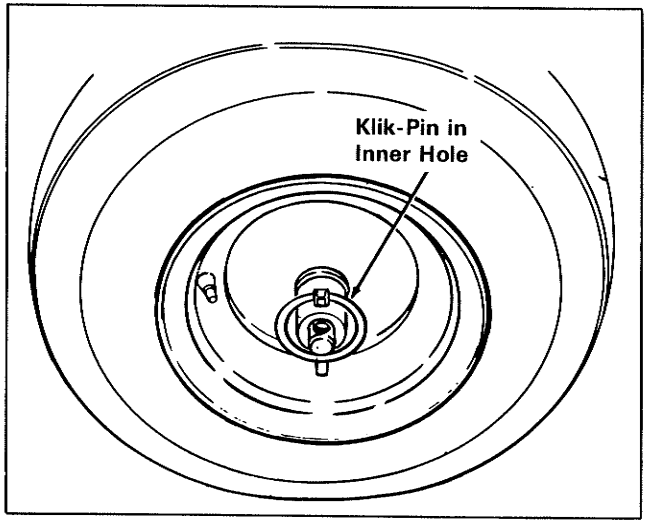


Figure 6. Tractor Drive Lock - Engaged

STARTING THE ENGINE

The engine can be started with the rewind (rope) starter, 120V electric starter, or an optional battery starter. Operating instructions, along with important safety precautions, are contained in the Tecumseh engine Owner's Manual. Refer to this manual for starting, stopping, maintenance, and adjustment information.

GROUND SPEED SELECTION

Use the ground speed selector (figure 7) to control the drive speed of the snowthrower. There are five forward speeds and two reverse speeds. Use the lower speeds to blow deep or wet snow. Use the higher speeds to blow light snow or to drive the snowthrower without blowing snow. To change speed, first release the traction drive lever. Then move the selector to the desired speed setting.

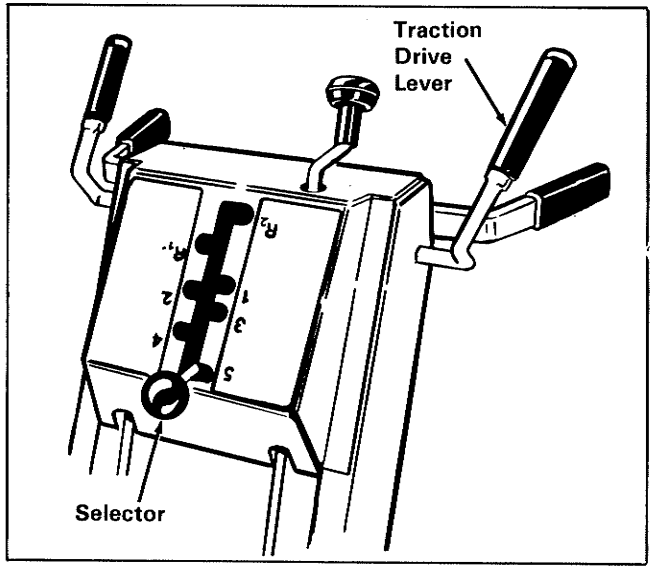


Figure 7. Ground Speed Selector

WARNING

OPERATION ON SLOPES

For your safety, operation on slopes should be in an up and down direction only. If it becomes necessary to move across the face of a slope, use caution and do not blow snow. Be very careful when changing direction on a slope.

Proper winter footwear is recommended for the operator to help prevent slipping.

Never attempt to clean snow from excessively steep slopes. The maximum slope for any operation is 35 percent (19.3°) which is a rise of 3-1/2 feet vertically in 10 feet horizontally.

WARNING

Before leaving the operator's area for any reason, stop the engine and remove the key. Disconnect spark plug wire and secure away from plug to prevent accidental starting.

WARNING

To avoid serious injury, do not put your hands into the auger housing or discharge spout. If auger stalls or spout plugs, use the following procedure to remove objects or clear the spout.

1. **Release both drive levers.**
2. **Shut off the engine.**
3. **Wait for moving parts to stop.**
4. **Use a narrow board to remove foreign objects and clear the spout. Never put you hands into the auger or discharge spout, because tension buildup due to plugging could cause parts to rotate upon clearing.**

WARNING

When both levers are depressed, Free-Hand™ control is activated on traction drive lever. Release lever on right-hand handle to stop auger and traction drive after Free-Hand™ control has been activated.

ENGINE SPEED

Set the engine speed lever to full speed.

OPERATION

1. For operation on slopes, see the "Operation on Slopes" warning box.
2. Start the engine.
3. Select desired ground speed and set engine speed to full.
4. To start snowthrower into motion, depress the Traction Drive Lever (figure 8). Releasing the lever will stop traction drive, unless Free-Hand™ control has been activated.
5. The lever on right-hand side is the Auger and Free-Hand™ control lever (figure 8). Depress this lever to engage the auger. Releasing the lever will stop the auger and also release the Free-Hand™ control. See step 6 for explanation of Free-Hand™ control.
6. Depressing both levers activates Free-Hand™ control. The operator can now release the Traction Drive Lever, and the wheels will continue to drive. When the Auger and Free-Hand™ control lever is released, both the auger and traction drive will stop.
7. Use of Free-Hand™ control will allow operator to rotate chute and adjust the deflector cap while snowthrowing.

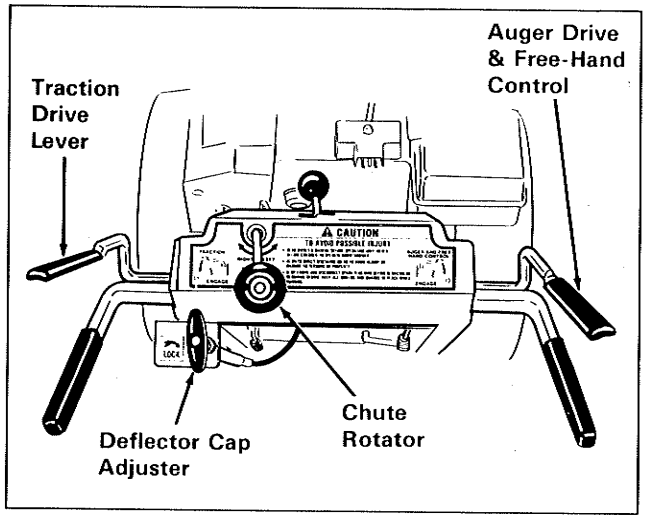


Figure 8. Free-Hand™ Control

AFTER EACH USE

WARNING

Never store the snowthrower in a building where gasoline fumes may reach an open flame, spark or pilot light such as on a furnace or water heater.

1. Before stopping engine, pull the starter rope twice and allow to rewind slowly. Then, stop the engine. This will help prevent freeze-up.
2. See the "To Stop Engine" section in your engine Owner's Manual. It describes how to prevent engine freeze-up.
3. Always remove the key to prevent unauthorized use.
4. Clean snow and ice from the snowthrower.
5. If the snowthrower is kept in a cold shelter, fill the fuel tank to prevent condensation. Do not store near sparks or flame.

NORMAL CARE CHART

Care Required	See Page	Every 25 Hours	Yearly
Check auger gear case lubrication.**	Page 17	•	
Lubricate snowthrower.	Page 17	•	
Check tire pressure.	Page 19	•	
Change engine oil.*	Eng. Manual	•	
Clean or replace spark plug.	Eng. Manual		•
Check battery (if equipped).	Battery Instructions	•	
Check discharge control.	Page 27		•

*Change original engine oil after first two hours of operation.
**Beginning and end of every season. Use Simplicity Worm Gear Oil only. See "Common Replacement Parts" page for specifications.

OFF-SEASON STORAGE

Before you store your snowthrower for the off-season, take the following precautions:

NOTE

Fuel may be stored in the tank or in a container for long periods if a gasoline stabilizer is used. This additive, available from your dealer, prevents formations of gum and varnish for up to one year.

1. Prepare your snowthrower engine for storage according to your engine Owner's Manual.
2. Lubricate the snowthrower as described in the Normal Care section.
3. If equipped with a battery, disconnect the cables or remove the battery from the snowthrower. The battery should be kept fully charged during storage.
4. Clean the snowthrower thoroughly. Coat all exposed bare metal parts with a good quality paint (available from your dealer) or a light film of grease, oil or automotive wax.

STARTING AFTER STORAGE

1. Remove the spark plug and wipe dry. Crank engine a few times to blow excess oil out of plug hole. Then reinstall plug.
2. Fill fuel tank with fresh gasoline (unless a fuel stabilizer was used).
3. Check to be sure engine fins are clean and air flow is unobstructed.
4. Check engine oil and lubricate snowthrower.
5. Start the engine outdoors. Do not run engine at high speeds immediately after starting.
6. Check the operation of the controls. If necessary, lubricate the snowthrower to improve operation of the spout control.

CHECK AUGER GEAR CASE LUBRICATION

Place the snowthrower on a level surface. Remove the pipe plug (A, figure 9). The lubricant should be level with the hole. If not, add Simplicity Worm Gear Oil (available from your dealer).

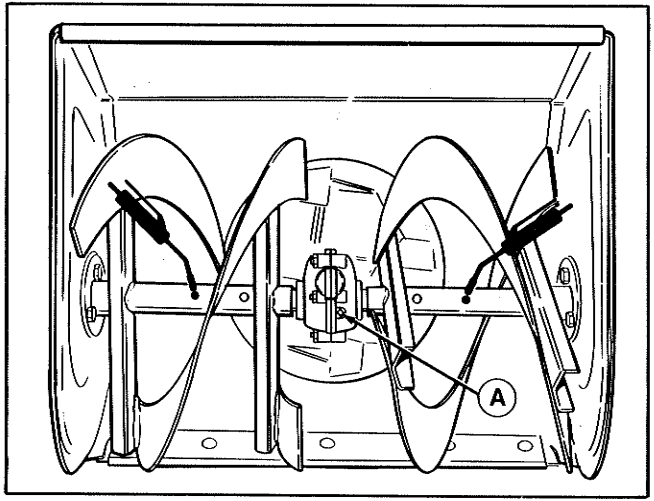


Figure 9. Check Auger Gear Case Lubrication

A. Pipe Plug

LUBRICATE THE SNOWTHROWER

CAUTION

It is very important that grease fittings on auger shaft (see figure 9) are lubricated regularly. If auger rusts to shaft, damage to worm gear may occur if shear pins do not break.

With an oil can, apply medium weight (10W) oil to points shown in figures 10 thru 14. There are two grease fittings in the auger shaft (figure 9). Wipe fittings clean and apply two or three shots of grease. Also, use grease on points shown in figure 11.

Generally, all moving metal parts should be oiled where contact is made with other parts. Keep oil and grease off belts and pulleys.

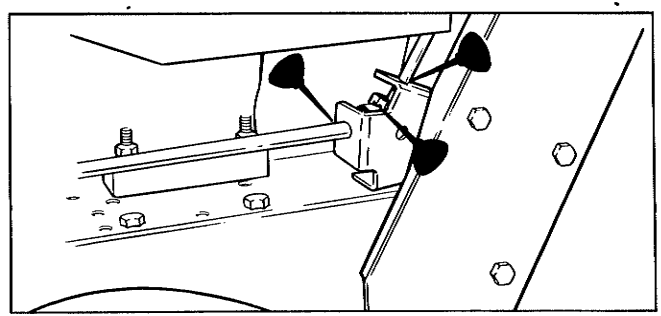


Figure 10. Lubricate Points Where Control Rods Pass Thru Bracket

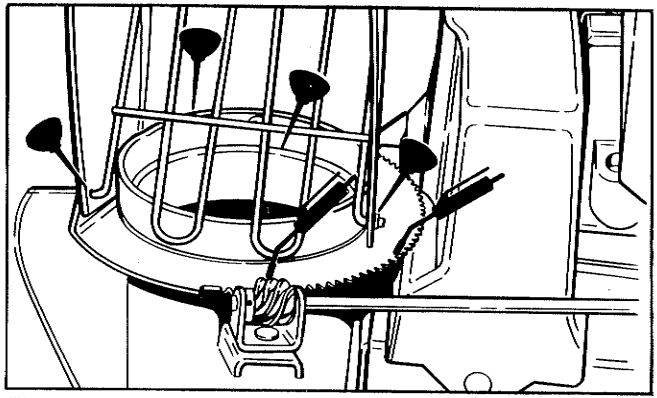


Figure 11. Lubricate Points Where Chute Contacts Flange (Oil); Lubricate Ring Gear and Pinion Gear While Rotating Spout (Grease)

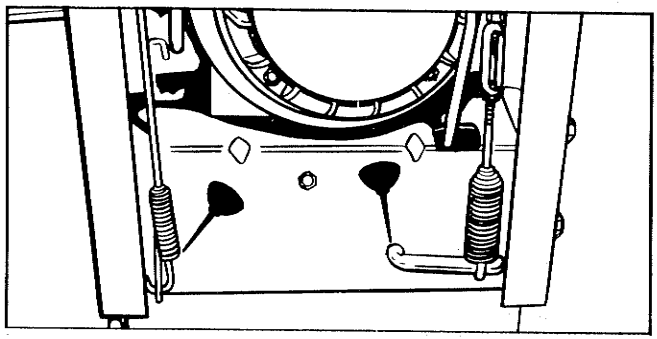


Figure 12. Lubricate Control Levers

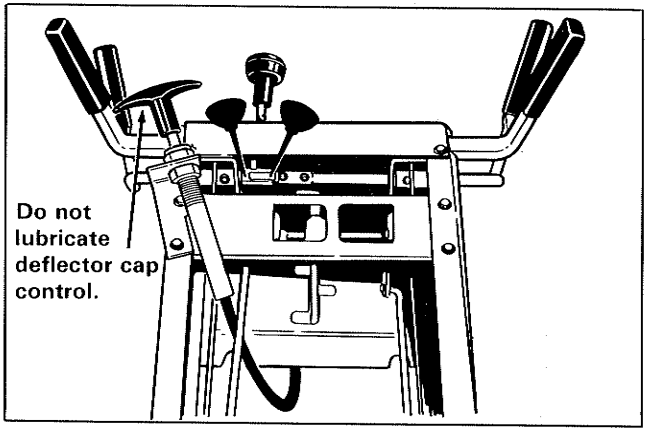


Figure 13. Lubricate Points Where Free-Hand™ Control Linkage Pivots

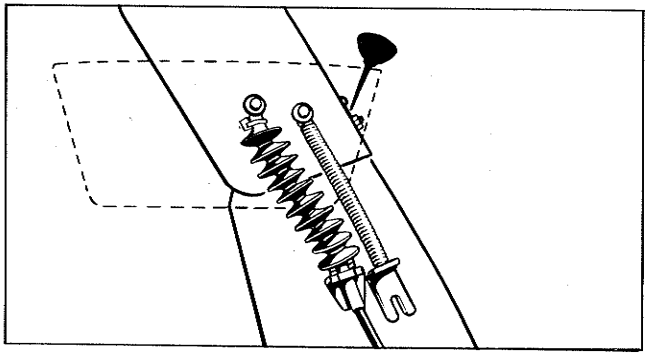


Figure 14. Lubricate Deflector Cap Hinges

CHECK TIRE PRESSURE

The air pressure in each tire should be 20 psi. Be sure to keep caps on valves to prevent entry of moisture. Tire pressure should be equal for best performance.

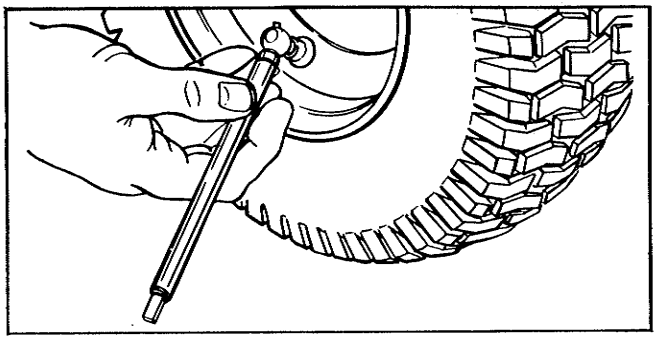


Figure 15. Tire Pressure

INSPECT THE BATTERY (If Equipped)

> **WARNING**
>
> **When removing or installing battery cables, always disconnect the negative cable first and reconnect it last to avoid electrical shock and to avoid causing sparks.**

Battery cables and terminals should be kept clean and free of corrosion. Baking soda and water can be used to clean the battery, compartment, and cables. The terminals and clamps can be cleaned with a wire brush and coated with petroleum jelly to inhibit corrosion. If water can be added to the battery, the fluid should be kept above the plates. If the battery loses its charge, see your dealer to recharge or replace it.

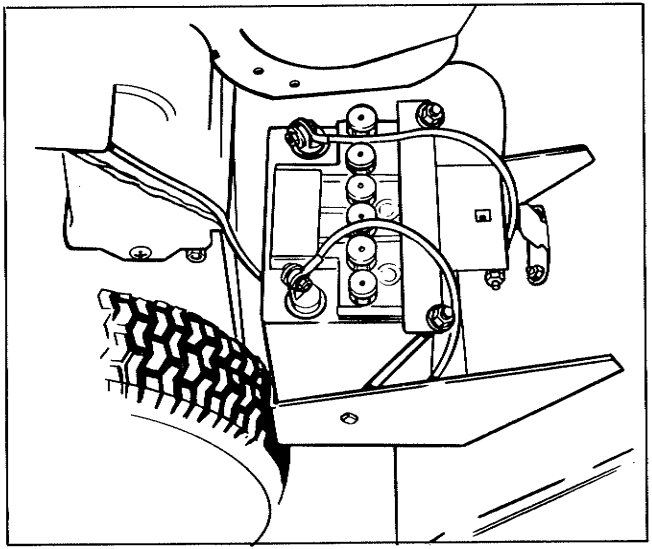


Figure 16. Typical Battery Installation (Shown with cover removed)

WARNING

Before performing any adjustment or service to snowthrower, stop the engine and wait for moving parts to stop. To prevent accidental starting, disconnect the spark plug wire and fasten away from the plug. Remove the key.

This section provides troubleshooting and service instructions. For problems not covered here, contact your dealer.

TROUBLESHOOTING

Locate the problem in the Troubleshooting Chart. Check the possible causes in the order they are listed. Also refer to the engine Owner's Manual for starting procedure, maintenance, etc.

Problem	Cause/Remedy
1. Engine fails to start.	**A.** Key off. Turn key to "ON" or "START".
	B. Out of fuel. Fill fuel tank.
	C. Choke not "ON". Move choke to "FULL" and set throttle to fast.
	D. Engine flooded. Move choke to "OFF" and try starting engine again.
	E. Spark plug faulty, fouled or poorly gapped.
	F. Water in fuel. Drain trank and refill with fresh fuel.
	G. Old stale gas. Drain tank and refill with fresh fuel.
	H. Battery discharged (if equipped). See your dealer.
2. Engine starts hard or runs poorly.	**A.** Fuel mixture too rich. Move choke to "OFF".
	B. Carburetor adjusted incorrectly. See your dealer.
	C. Spark plug faulty, fouled or poorly gapped. Clean and gap replace.
	D. Fuel cap vent blocked. Clear vent.

3. Auger does not rotate.	**A.**	Auger drive lever not engaged. Engage auger drive lever.
	B.	Foreign matter blocking auger. STOP engine. REMOVE key. DISCONNECT spark plug wire. Unplug auger with narrow board. See warning on inside front cover.
	C.	Auger drive belt slipping. Check auger drive tension adjustment.
	D.	Broken belt. Replace belt.
	E.	Shear pin broken. Replace.
4. Auger rotates, but snow not thrown far enough.	**A.**	Spout deflector too low. Adjust deflector as necessary.
	B.	Engine speed too slow. Set to full throttle.
	C.	Ground speed too fast. Use slower speed.
	D.	Snowthrower discharge spout clogged. STOP engine. REMOVE key. REMOVE spark plug wire. Unplug discharge spout with narrow board. See warnings on inside front cover.
5. Scraper bar does not clean hard surface.		Scraper bar improperly adjusted. Adjust.
6. Snowthrower picks up and throws stones on gravel drive.		Scraper bar improperly adjusted. Adjust.
7. Poor traction.	**A.**	Traction drive lock not engaged. Engage lock.
	B.	Transmission drive slipping. Check traction drive tension.
	C.	Tires slipping. Check tire pressure and tread.
	D.	Friction disc worn. See your dealer.
8. Auger does not stop when drive lever is released.		Auger drive belt out of adjustment. Adjust auger drive belt tension.

9. Snowthrower does not stop when traction drive lever is released.		Traction drive out of adjustment. Adjust traction drive tension.
10. Snowthrower does not drive when traction drive lever is engaged.	**A.**	Traction drive out of adjustment. Adjust.
	B.	Drive belt broken or stretched. Replace belt.
	C.	Transmission drive slipping. Check traction drive tension.
	D.	Friction disc requires replacement. See your dealer.
11. Discharge control difficult to operate.	**A.**	Gears need lubrication. Oil as required.
	B.	Pinion gear requires adjustment. See Discharge Control Adjustment.
12. Cannot shift into all speeds.		See Speed Selector Adjustment.
13. Snowthrower veers to one side.		Tire pressure not equal; should be 20 p.s.i. in each tire.
14. Snowthrower difficult to turn.		Disengage drive locks on one or both wheels.

BELT REPLACEMENT

1. Rotate the spout full right. Loosen the two screws (B, figure 17) which secure the belt cover (A). Tilt the cover toward the front and work it off the snowthrower.

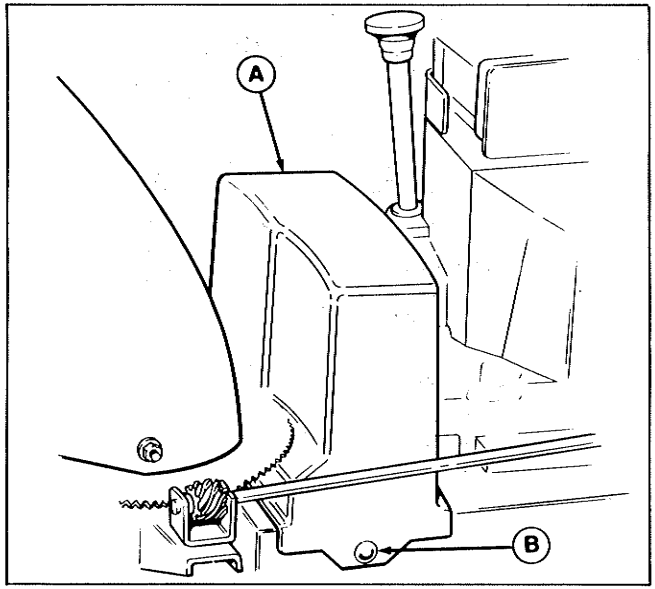


Figure 17. Belt Cover

A. Belt Cover
B. Screws

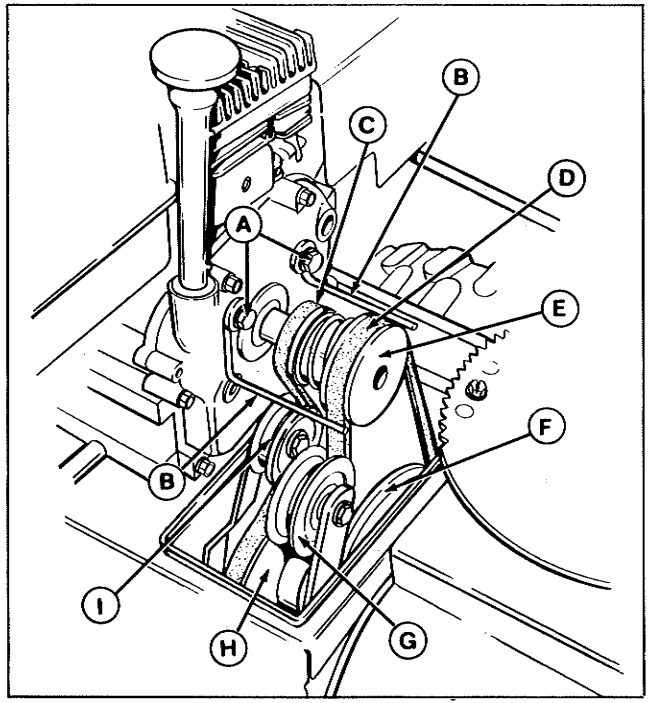


Figure 18. Belts & Pulleys

A. Cap Screws
B. Belt Guides
C. Traction Drive Belt
D. Auger Drive Belt
E. Engine Pulley
F. Auger Pulley
G. Idler Pulley, Auger
H. Traction Pulley
I. Idler Pulley, Traction

2. Remove the belt guides (B, figure 18) by loosening the two capscrews (A), lockwashers and plain washers.
3. Remove the auger drive belt as follows.
   a. Slip the auger drive belt (D) from the idler pulley by pushing it away from the pulley and then toward the rear.
   b. Remove the belt from the engine pulley. Slip the belt from under the brake pad.
   c. Remove six capscrews from bottom cover to snowthrower frame. Loosen nuts (A, figure 19) on each side to release auger pulley belt stops (B). Move belt stops and remove belt from pulley (C).
   d. Belt can be removed from top or bottom. For more clearance to get the belt out, engage the traction drive lever to move the traction pulley back.
4. Remove the traction drive belt as follows.
   a. Pull the idler pulley (I, figure 18) away from the belt and slip the belt from the pulley.
   b. Slip the belt off the traction pulley and then the engine pulley. The arm for the front idler pulley (G) may have to be pivoted to provide clearance for slipping the belt off the traction pulley.
   c. Pull the belt out between the auger pulley (F) and traction pulley (H).

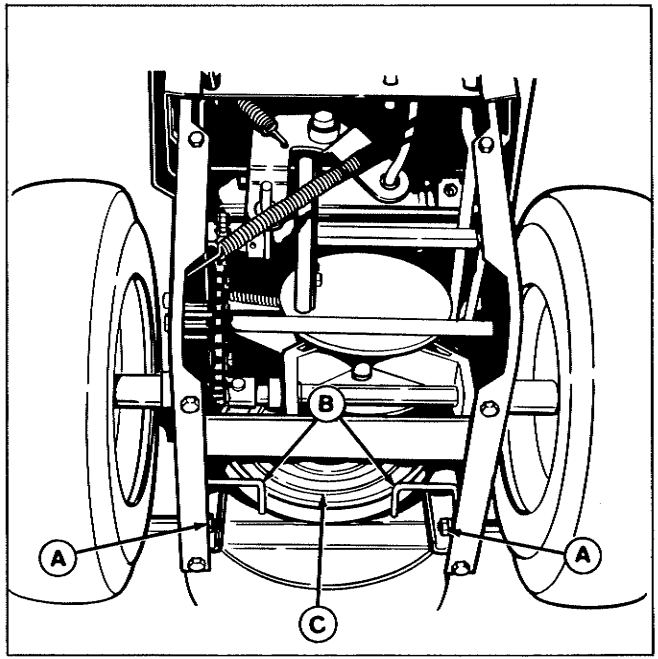


Figure 19. Auger Pulley Belt Stops (bottom cover shown removed)
A. Nuts
B. Belt Stops
C. Auger Pulley

5. Reverse the procedure to install the belts. Be sure there are no twists and the belts are properly seated in the grooves. Adjust the belt stops so there is 1/8" (3 mm) between belt and stop. The pattern for both belts is shown in figure 20.
6. Check the traction drive tension and auger drive tension. See next section.
7. Make sure the auger stops when the auger drive lever is released. Make sure traction drive stops when the traction drive lever is released. If not, recheck drive tension. If problem still exists, see your dealer.

WARNING

Do not go near the discharge chute or auger when the engine is running. Do not run the engine with any cover or guard removed.

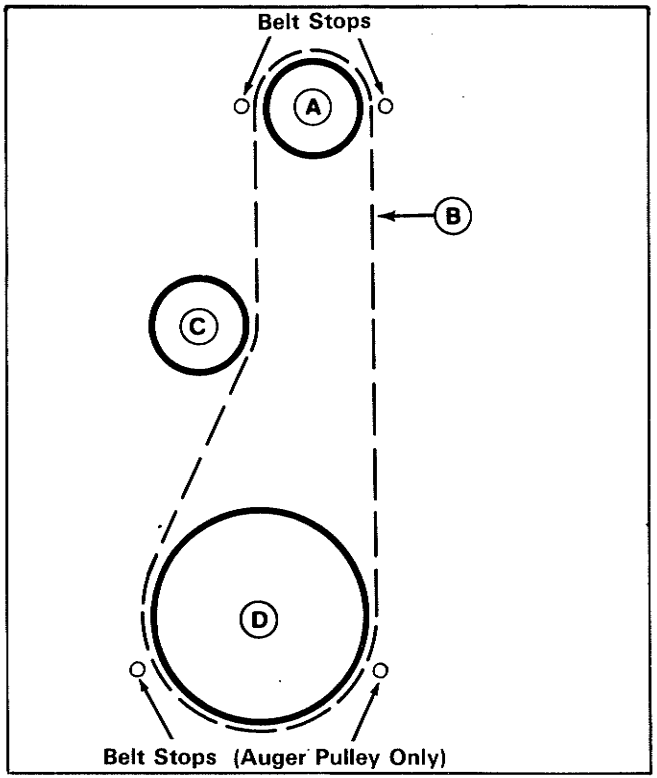


Figure 20. Belt Pattern (as viewed from front of snowthrower)

A. Engine Pulley
B. Drive Belt
C. Idler Pulley
D. Driven Pulley

SPEED SELECTOR ADJUSTMENT

1. Loosen the two nuts (A, figure 21).
2. Place the shift lever in 5th gear. The lower link (B) will properly locate itself due to an internal spring.
3. Tighten the two nuts. Do not lift up or down on rods while tightening. Make sure the shoulders of the carriage bolts are in the slots.
4. Always check traction drive tension and auger drive tension after adjusting speed selector.

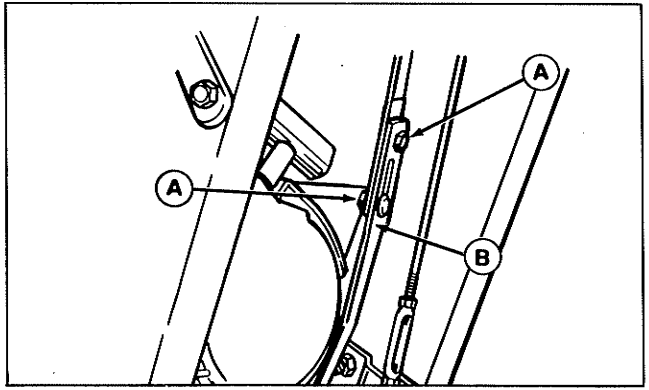


Figure 21. Auger Drive Linkage

A. Nut
B. Lower Speed Selector Rod

AUGER/TRACTION DRIVE TENSION

With the drive levers engaged, bottom end of lower rods (D, figure 22) should be flush with bottom of springs (E). To adjust, loosen the two nuts (B). Hold lower rod to keep from turning and turn the turnbuckle (C) toward the right to lower rod or toward the left to raise rod. Engage the drive lever to check the adjustment. When correct, tighten the two nuts against the turnbuckle. (Hold turnbuckle with pliers while tightening nuts.)

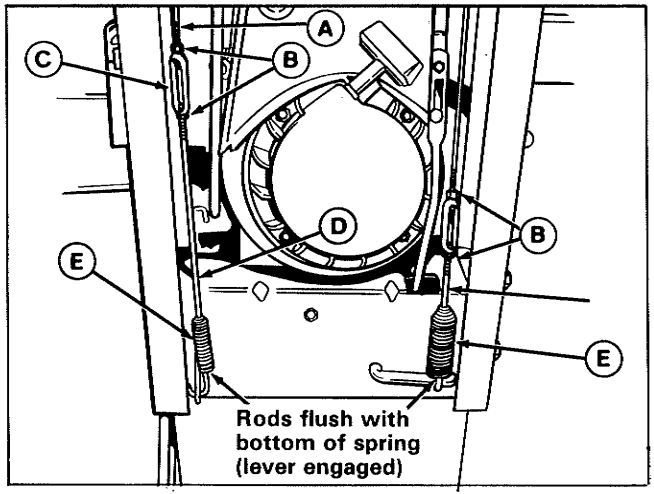


Figure 22. Drive Tension Adjustment

A. Upper Rod
B. Nuts
C. Turnbuckle
D. Lower Rod
E. Spring

SHEAR PIN REPLACEMENT

If the auger strikes an object which could cause damage, the shear pins will break. This protects the gear box and other parts from damage. The shear pins are shown in figure 23. To replace, install a new shear and cotter pin. Spread the legs of the new cotter pin fully. Do not replace shear pins with bolts, screws or a harder shear pin.

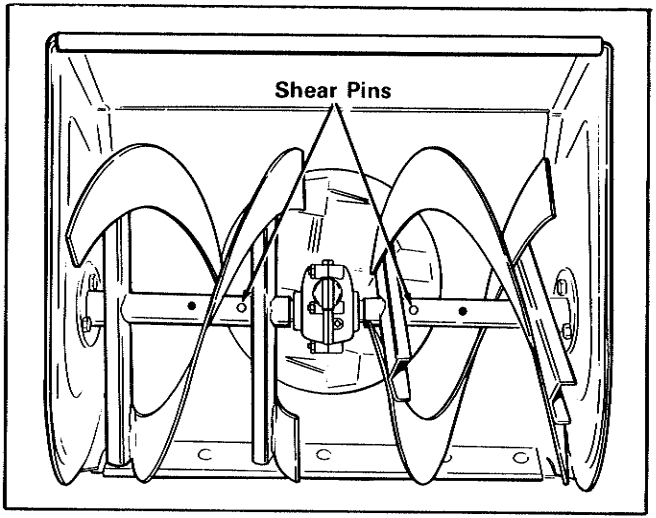


Figure 23. Shear Pins

DISCHARGE CONTROL ADJUSTMENT

If the discharge control is difficult to operate, first lubricate the pinion gear (A, figure 24) and ring gear (F). The pinion gear can be adjusted by loosening the nut (G) which holds the pinion gear bracket in the slotted hole. If the pinion gear is too tight against the ring gear, move it away slightly and then retighten the nut. Check operation again.

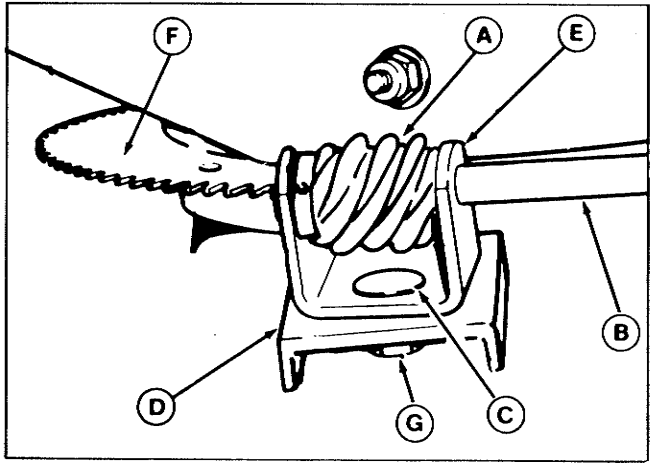


Figure 24. Discharge Control

A. Pinion Gear
B. Control Rod
C. Carriage Bolt
D. Slotted Bracket
E. U-Shaped Bracket
F. Ring Gear
G. Nut

Specifications

ENGINE

Make: Tecumseh
Cylinders: 1
Cycles: 4
Crankshaft: Horizontal

5 HP (3.73 kW)*
Model No. See engine I.D. plate
Bore & Stroke: 2-13/16 in. (71.44 mm) x 1-15/16 in. (49.23 mm)
Displacement: 12.04 cu. in. (197.34 cc)

8 HP (5.97 kW)* (Model 870)
Model No. See engine I.D. plate
Bore & Stroke: 3-1/8 in. (79.38 mm) x 2-17/32 in. (64.31 mm)
Displacement: 19.41 cu. in. (318.27 cc)

10 HP (7.46 kW)*
Model No. See engine I.D. plate
Bore & Stroke: 3-3/16 in. (89.96 mm) x 2-17/32 in. (64.31 mm)
Displacement: 20.20 cu. in. (331.06 cc)

Ignition: Magneto
Governor: Mechanical
Choke: Manual
Lubrication: Splash System
Oil Capacity: See Engine Manual
Fuel Capacity: See Engine Manual

TRACTION DRIVE

Type: Friction drive transmission w/chain, gear drive and speed selection.
Speeds: Five forward, two reverse
Axle: Solid w/klip-pin lock for two-wheel drive
Tires: 4.80/4.00-8 Snow Hog tires
Tire Inflation: 20 psi (137 kPa)

BLOWER HOUSING

Construction: Welded Steel Stampings
Effective Width: **Model 560:** 24 in. (60 cm)
Model 870: 28 in. (70 cm)
Model 1080: 32 in. 80 cm)
Auger Opening Height: 19 in. (47.5 cm)
Spout: 210° rotation
Scraper Bar: High carbon, wear resistant steel
Skid Shoes: Adjustable, heat treated steel

AUGER

Construction: Ribbon flite welded steel
Bearings: Self-lubricating bearing

IMPELLER

Construction: 4 steel blades
Diameter: 12 in. (30 cm)
Bearings: Prelubricated and sealed ball bearing

AUGER & IMPELLER DRIVE

Type: Cushion V-belt and worm gear housing

OVERALL DIMENSIONS & WEIGHT

Length: 56-7/8 In (142.18 cm)
Width: **Model 560:** 26 in. (65 cm)
Model 870: 30 in. (75 cm)
Model 1080: 34 in. (85 cm)
Height: 37-3/8 in. (93.44 cm)
Weight: **Model 560:** 226 lbs. (100 kg)
Model 870: 255 lbs. (115 kg)
Model 1070: 265 lbs. (120 kg)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Common Replacement Parts

Listed below are part numbers for the more common replacement parts. Use the order form at the back of the manual to order a complete, illustrated parts manual. Use only genuine replacement parts to assure optimum performance and safety.

DESCRIPTION	PART NUMBER
SpecialWorm Gear Oil - For Auger Gear Case	
8 Oz. Container	**1704636**
8 Oz. Case	**1685406**
Simplicity Brand SAE 5W30 Cold Weather Engine Oil (Case of 12 Qts.)	**1685576**
Keys - Ignition	**122203**
Traction Drive Lock Klik-Pin	**1666969**
Shear Pins	**1668344**
Traction Drive Belt	**1672732**
Auger Drive Belt	**1701257**
Handle Grip	**1671041**

DESCRIPTION	PART NUMBER
Grease Gun Kit	**1685510**
8 Oz. Grease Tube for above	**103077**
Touch-Up Paint	
Deep Orange Spray Paint, 13 Oz. Can	**1685611**
Deep Orange Spray Paint, 13 Oz. Can, Case of 12	**1685614**
Deep Orange Paint, 1 Qt.	**1685612**
White Spray Paint, 13 Oz. Can	**103049**
Touch-Up Daubers	
Deep Orange	**1685613**
(6 Deep Orange & 6 White - see your dealer for individual daubers.)	
Service Manual	**1672610**
Pneumatic Tire Seal - Stops Leaks Available in following amounts:	
11 Oz. Tube	**1685523**
Case of 12 - 11 Oz. Tubes	**1685537**
Case of 24 - 11 Oz. Tubes	**1685525**

USE ONLY GENUINE
***SIMPLICITY* REPLACEMENT PARTS**
Available through your local authorized *Simplicity* dealer.

Identification & Accessories

Record your model and serial numbers here for easy reference. The snowthrower I.D. tag is located on rear of frame.

Snowthrower I.D. (Mfg. No. & Serial No.)

Engine Model

Serial Number

(See engine Owner's Manual for location of serial number.).

See your dealer to purchase any of the following accessories for your snowthrower.

The PROTECTOR Snow Cab:
Provides shelter for operator from severe weather and blowing snow. Available for all models. **Also, Soft Cabs now available for all models.**

Light Kit
Amber light for early and late snowthrowing. Standard on some models.

Electric Starter Kit (120V AC):
Offers operator the convenience of electric starting. Available for all models. Standard on some models.

Drift Cutters:
Helps break through drifts. Available for all models. Standard on some models.

Tire Chains:
Increase traction on snowy surfaces (use with caution to avoid marking surfaces). Available for all models. Standard on some models. Not for Snow Hog tires.

Parts Manual Available

Simplicity Parts Manuals are fully illustrated. All of the assemblies are shown in exploded views which show the relationship of the parts and how they go together. Important assembly notes and special torque values are included in the illustrations. For standard hardware, a torque specification chart is included.

To order a Parts Manual for your Snowthrower, fill out the form and enclose it in an envelope with a check or money order made out to:

Simplicity Manufacturing, Inc.
Attn: Cashier
500 N. Spring Street
P.O. Box 997
Port Washington, WI 53074-0997

Service Manual Available

A Do-It-Yourself Service Manual is available from your dealer. Order part number 1672610. This manual contains fully illustrated step-by-step instructions for complete maintenance, troubleshooting, and repair.

Extend Equipment Life -
Use Only Genuine
Simplicity Repair Parts

☐ I would like a Parts Manual (TP-1126) for my Snowthrower, Mfg. No. 1691368, 1691370, 1691371 or 1691716. I am enclosing a check or money order for $5.50.

☐ I would like Parts Manual (TP-1154) for my Snowthrower, Mfg. No. 1691774, 1691775 or 1691776.1 am enclosing a check or money order for $5.50.

☐ I would like a Service Manual for my snowthrower. I am enclosing a check or money order for $7.00.

■ Include $1.50 for handling and postage.

Snowthrower Mfg. No. _____

Print clearly. This will be your mailing label.

Name _____

Street or RFD _____

City, State, Zip _____

SIMPLICITY MANUFACTURING, INC.
500 N. Spring St., P.O. Box 997
Port Washington, WI USA 53074-0997

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8/89